

Unit 2

Day 1

Roots and Radicals


Pre-1.7 Worksheet instruction

1)

$$\begin{aligned}\sqrt{72} &= \sqrt{36 \cdot 2} \\ &= 6\sqrt{2}\end{aligned}$$

$$\begin{aligned}\sqrt{72} &= \sqrt{2^3 \cdot 3^2} = 2 \cdot 3\sqrt{2} \\ &= 6\sqrt{2}\end{aligned}$$

2)

$$\sqrt{104} = \sqrt{4 \cdot 26} = 2\sqrt{26}$$


3)

$$\sqrt{-128} = \text{NR}$$

4)

$$\sqrt[3]{64} = \sqrt[3]{2^6} = 2^2 = 4$$

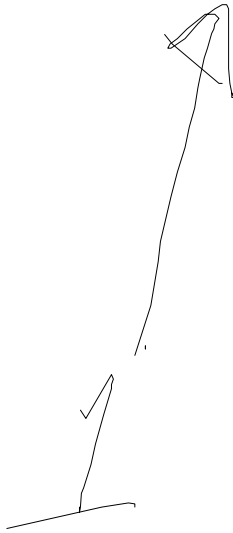
5)

$$\sqrt[3]{x^6} = x^2$$


Rationalize the denominator

6)

$$\frac{5}{\sqrt{7}} \cdot \frac{\sqrt{7}}{\sqrt{7}} = \frac{5\sqrt{7}}{\sqrt{(7)^2}} = \frac{5\sqrt{7}}{7}$$



7)

$$\frac{7}{\sqrt[5]{125}} \cdot \frac{\sqrt[5]{5^2}}{\sqrt[5]{5^2}} = \frac{7\sqrt[5]{5^2}}{\sqrt[5]{(5)^5}} = \frac{7\sqrt[5]{25}}{5}$$


Do now and finish for homework

3 Worksheets (2 simplifying, and 1 Rationalizing)